

# The Trend in Flour Packaging

By Martin E. Newell

**P**RIOR fluctuations in cotton and jute apparently were the most important factors influencing the use of the various types of packaging for flour during the past five years, but despite the relatively lower prices for cotton which prevailed since the years following the war, the use of jute has held its ground although showing some recession from high points, established by low prices plus good flour export trade.

The use of paper also seems to depend to a great extent upon the price of cotton, although there is a definite tendency, especially apparent among smaller mills, to pack a greater percentage of flour shipments in paper.

On this page are two tables, the first showing percentages of flour packed according to the size and type of containers in the year 1928, and the second showing the percentages and calculated usage of various types of containers during the crop years from 1923-24 to 1927-28.

The figures shown in Table No. 1 are based on reports from 75 mills, having a total capacity of 163,525 bbls per day. The mills are divided into four classes: group one, those below 1,000 bbls capacity; group two, those between 1,000 and 2,500 bbls; group three, between 2,500 and 5,000 bbls; group four, above 5,000 bbls.

The data shown in Table No. 2 are based upon returns for 32 mills of the above group, which reported for four years. These mills represented a total capacity of 82,225 bbls per day. It is apparent that these percentages and totals are slightly too low for cotton, too high for jute, paper and wood, in about the ratio shown between the figures in Table No. 1 and Table No. 2, but this, of course, does not affect the relative values of the figures in the second table.

There is no competition in the flour industry between paper and jutes, but only between these two and cotton. From a period of high prices during and following war years, cotton has come into greater use during the past three years, yet it appears that its use largely is a question of price relationship, since there is fairly close correlation between cotton prices and the amount used. During the 1923-24 and 1925-26 crop years, cotton prices were high compared with jute, while in the next season low levels were reached, coinciding with high jute prices. In 1926-27 prices were advancing, and in 1927-28 averaged still higher.

Increases in the buying of commercial baked products tend to create a greater demand for large sized cottons at the expense of paper chiefly, but use of the latter has been well maintained in smaller sized packages. A fairly constant increase in the amount of cotton packages used by mills below 2,000 bbls capacity is shown in the reports, a slight slump appearing in the 1927-28 figures, after a constant increase for the preceding four seasons.

### THE SITUATION IN JUTE

The "rising tide of jute," which is so alarming to cotton growers and manufacturers in the United States, has apparently made little progress in flour packaging during the past five years. Price maladjustments during and following war years naturally favored the use of jute, but apparently there has been no great increase in recent seasons, although figures are obscured somewhat by price fluctuations and vicissitudes in the export flour trade.

Increased use of commercial baked products has helped to foster the use of jute and maintain totals in the face of declines in the export trade. Although the differences between the use of jute and the amount of flour exported would indicate a slight recession in jute pack-

aging for the domestic trade since 1925, the decline is probably not as great as it seems, since there probably was much less cotton going into the export trade before 1925 than since. There is a very apparent tendency on the part of mills of a capacity below 2,000 bbls to substitute cottons for jute, possibly the result of a loss of export trade to larger companies and the increase in the use of smaller sized units.

In analyzing the figures shown in the chart, it is apparent that there is an unexpected difference between the use of jute in the 1923-24 crop year and the following season. It is probable that the percentage shown for jute in 1923-24 is slightly too low and that for paper too high, but even discounting this factor, the gain in 1925 appears unusual. However, reports of the Department of Commerce show that imports of jute bags during 1925 were rather large, totaling about 48,070,000 lbs, surpassing by about 1,000,000 the imports of the previous year and by about 700,000 the imports of 1923.

Although the total amount of jute used has not reached the level of either

1925-26 or 1923-24 since those years, the favorable price relation between cotton and jute has not existed since. During 1924, cotton prices still were at a high level, the aftermath of the war time scarcity, while jute prices were low as usual. The decline, which began in that year, continued throughout 1925, while at the same time jute prices rose rapidly. This narrowing of the price difference, however, was not reflected in the Millers' National Federation package differentials until near the end of 1925, after prices of jute "first marks" at London had almost doubled on crop damage reports. Within two years the differential on 140-lb jutes had risen from 15c bbl under to the basis, where it remained during most of 1926, a slight recession of 5c being made after prices began to return to normal again. This deflection of the price differential and the low export sales during the 1925-26 crop year, combined to keep usage of jute at a low figure during that season.

Cotton prices, after a long decline, rose rapidly in the early part of 1927 and 140-lb jutes were returned again to the basis in the federation card, where

they remained until 1928. At present they are only 5c under basis, still 10c above the level in the early part of 1924.

Although there is a greater tendency to use paper for small sized packages in the flour milling industry, the increase in this respect has been practically offset by the smaller amount of flour going into the family trade. Consequently, figures show a fairly constant character, the low point in the percentages coinciding with cheap cotton prices, which made substitution of the latter desirable. It is probable that the figures shown for 1924 are slightly too high, and that the difference should have been credited to jute.

There is a definite trend toward the use of more paper on the part of medium and smaller sized mills, and the advance is consistent in this class during the period under consideration. Nor has there been any material recession on the part of larger mills, except in the year 1923-26 when cotton prices were low.

Although there is a fluctuation from year to year in the amount of flour packed in packages larger than 49 lbs, the figures are fairly constant. However, there is a definite tendency among mills below 1,000 bbls in capacity to use a greater percentage of packages smaller than 49 lbs. Among all mills, there is an increase in the use of a larger variety of containers, the average number of sizes reported rising steadily from 9.7 in 1923-24 to 11.03 in 1927-28.

TABLE NO. 1. SIZE OF PACKAGES USED BY MILLS—1928

| Kind of Package | Size    | Group   |         |         |          | All     |
|-----------------|---------|---------|---------|---------|----------|---------|
|                 |         | Group 1 | Group 2 | Group 3 | Group 4  |         |
| Wood            | 198     | .492    | .115    | .081    | .081     | .0274   |
|                 | 198     | .941    | .449    | .511    | .681     | 3.6550  |
|                 | 198     | .022    |         |         | .014     | .0086   |
|                 | 230 1/2 |         |         | .005    | .039     | .0193   |
| Jute            | 200     |         | .139    | .131    | .131     | 1.212   |
|                 | 196     |         |         | .313    | .656     | 3.8850  |
|                 | 140     | 11.250  | 30.630  | 26.150  | 13.810   | 20.7623 |
|                 | 132 1/2 |         |         | .075    |          | .0203   |
|                 | 125 1/2 |         |         | .067    |          | .0177   |
|                 | 110 1/2 |         |         |         |          |         |
|                 | 110     |         | .054    | .065    | .131     | .0879   |
|                 | 100     | .321    | .122    |         |          | .0247   |
|                 | 98      | .470    | .342    | 1.033   | .018     | .0403   |
|                 | 230 1/2 |         |         | .005    |          | .0015   |
|                 | 200     |         | 1.450   | .144    |          | .3208   |
| Cotton          | 196     |         | .001    | .013    | .185     | .0886   |
|                 | 140     | .720    | .155    | .027    | .276     | 2.262   |
|                 | 110     | .458    |         | .027    |          | .0504   |
|                 | 98      | 31.600  | 31.300  | 32.570  | 30.360   | 31.5563 |
|                 | 96.8    |         | .073    |         |          | .0131   |
|                 | 96      |         | .025    |         |          | .0051   |
|                 | 49      | 2.660   | 5.210   | 5.180   | 17.080   | 10.3295 |
|                 | 48      | 11.240  | 8.140   | 5.350   | 1.550    | 4.7089  |
|                 | 24 1/2  | 1.720   | .940    | 1.020   | 5.928    | 3.2598  |
|                 | 24      | 20.370  | 10.140  | 5.860   | .768     | 5.7854  |
|                 | 12 1/2  | .079    | .940    | .338    | .035     | .1179   |
|                 | 12      | 2.430   | 1.558   | 1.343   | .718     | 1.2403  |
|                 | 10      | .136    | .043    | .213    | .149     | .1455   |
|                 | 9.8     | .075    |         |         | 1.237    | .5227   |
|                 | 7       | .037    |         | .002    | 3.328    | 1.4927  |
|                 | 6       | .360    | .717    | .491    | .159     | .3723   |
|                 | 4.9     |         | .088    | .007    | .047     | .0397   |
|                 | 3 1/2   | .004    | .013    | .009    | .885     | .4022   |
|                 | 3       |         | .001    |         | 5.748    | 2.5088  |
|                 | 2       | .003    | .034    | .017    | .166     | .0877   |
|                 | 1 1/2   |         |         |         | .309     | .1394   |
| Paper           | 49      | 1.060   | .936    | 1.010   | .615     | .7861   |
|                 | 48      |         | .047    | .054    | .006     | .0263   |
|                 | 24 1/2  | 6.240   | 3.071   | 7.003   | 5.961    | 5.7786  |
|                 | 24      | 1.130   | 2.180   | 4.003   | 1.291    | 2.1328  |
|                 | 12 1/2  | .293    | .494    | .771    | 1.907    | .2972   |
|                 | 12      | .433    | .656    | 2.238   | 2.729    | 1.9345  |
|                 | 10      | .608    | .134    | .877    | .074     | .3599   |
|                 | 8.75    |         |         | .001    |          | .0002   |
|                 | 7       | .006    | .164    | .125    | .012     | .0057   |
|                 | 5       | 2.660   | .613    | 5.511   | 2.618    | .0929   |
|                 | 4       |         |         | .048    |          | .0135   |
| 3 1/2           |         |         | .027    | .023    | .0269    |         |
| 3               |         |         | .102    |         | .0284    |         |
| 2 1/2           | .040    |         | .040    |         | .0036    |         |
| 2               |         | .004    | .067    | .163    | .0830    |         |
| 1 1/2           |         |         | .048    | .001    | .0003    |         |
| 20              |         |         | .004    |         | .0133    |         |
| Miscellaneous   | .001    | .010    | .004    | .150    | .0711    |         |
| Totals          | 100.000 | 100.000 | 100.000 | 100.000 | 100.0000 |         |
| All wood        | 1.025   | .568    | .211    | .955    | 5.710    |         |
| All cotton      | 71.463  | 69.236  | 52.651  | 68.941  | 63.3079  |         |
| All jute        | 12.041  | 31.287  | 27.864  | 14.785  | 21.8402  |         |
| All paper       | 12.470  | 8.199   | 19.250  | 15.449  | 14.1458  |         |
| Above 49 lbs    | 48.315  | 64.830  | 60.881  | 46.301  | 54.6732  |         |

TABLE NO. 2. KIND OF PACKAGING USED, BY YEARS

|                | 1927-28  |                           | 1926-27  |                           | 1925-26  |                           | 1924-25  |                           | 1923-24  |                           |
|----------------|----------|---------------------------|----------|---------------------------|----------|---------------------------|----------|---------------------------|----------|---------------------------|
|                | Per cent | Actual usage (1,000 bbls) | Per cent | Actual usage (1,000 bbls) | Per cent | Actual usage (1,000 bbls) | Per cent | Actual usage (1,000 bbls) | Per cent | Actual usage (1,000 bbls) |
| Cotton         | 60.39    | 76.116                    | 61.13    | 78.631                    | 61.91    | 77,327                    | 58.28    | 74.655                    | 58.78    | 77,567                    |
| Jute           | 22.15    | 29,179                    | 23.07    | 29,675                    | 22.27    | 27,819                    | 25.40    | 32,533                    | 23.47    | 30,459                    |
| Paper          | 15.71    | 19,801                    | 15.08    | 19,410                    | 15.08    | 18,837                    | 15.60    | 19,856                    | 16.16    | 20,831                    |
| Wood           | .73      | 920                       | .70      | 901                       | .73      | 911                       | .79      | 841                       | .65      | 843                       |
| Per cent above |          |                           |          |                           |          |                           |          |                           |          |                           |
| 49 lbs.        | 56.32    | 70,972                    | 56.58    | 72,745                    | 55.59    | 70,414                    | 57.90    | 74,081                    | 55.68    | 72,252                    |
| Production     | 126,016  | 128,617                   | 128,617  | 124,884                   | 124,884  | 127,985                   | 127,985  | 129,764                   | 129,764  | 129,764                   |
| Exports        | 12,916   | 13,361                    | 13,361   | 8,542                     | 8,542    | 13,896                    | 13,896   | 13,896                    | 13,896   | 13,896                    |

## FLOUR BRANDS

The following list of trade-marks, published in the Official Gazette of the United States Patent Office prior to registration, is reported to The Northwestern Miller by Mason, Fenwick & Lawrence, patent and trade-mark lawyers, Washington, D. C. Mills and flour dealers who feel that they would be damaged by the registration of any of these marks are permitted by law to file, within 30 days after publication of the marks, a formal notice of opposition.

- AMERICAN HOUSE and red oval; American Grocery Co., Hoboken, N. J.; alimentary paste products, breakfast and household cereals, such as farina, oatmeal, corn meal, rice and all kinds of cereal flours. Use claimed since May, 1921.
- CROSS COUNTRY and airplane design; Pogo Milling Co., Luray, Va.; wheat flour. Use claimed since Sept. 21, 1929.
- GO-FAR and three ovals; Go-Far Cereal Mills, Fargo, N. D.; self-rising pancake flour, whole-wheat breakfast cereal, whole-wheat flour, graham flour, rye flour, buckwheat flour and corn meal. Use claimed since 1921.
- HARVEST TIME; Pillsbury Flour Mills Co., Minneapolis; pancake flour. Use claimed since Nov. 9, 1928.
- KADOTA FIG-BTTS; Kadota Fig Products Co., Los Angeles; cereal breakfast food. Use claimed since March, 1927.
- MALLOW BLOOM and floral design; H. C. Cole Milling Co., Chester, Ill.; wheat flour and self-rising flour. Use claimed since November, 1927.
- NEW SOUTH; Ballard & Ballard Co., Louisville, Ky.; wheat flour and self-rising flour. Use claimed since Sept. 1, 1925.
- PILLAR ROSE and flour design; Stannard Tilton Milling Co., St. Louis; wheat flour, whole wheat flour, phosphated and self-rising flour. Use claimed since August, 1929.
- TWIN OAKS and tree design; Buffalo (N. Y.) Flour Mills Corporation; wheat flour. Use claimed since Sept. 9, 1928.
- UNITA and girl and lion design; United Importers, Inc., Providence, R. I.; macaroni, packaged rice. Use claimed since January, 1925.

## Convention Calendar

- Jan. 6-7—Pennsylvania Bakers' Association, midyear convention at Harrisburg; C. C. Latus, 60 Methodist Building, Pittsburgh, secretary.
- Jan. 8—Southern Illinois Millers' Association, annual meeting at St. Louis; J. L. Grigg, Eagle Milling Co., Sparta, Ill., secretary.
- Jan. 13-15—Ohio Bakers' Association, annual convention at Columbus; George A. Daut, 361 East Duncedin Road, Columbus, secretary-manager.
- Feb. 3—Potomac States Bakers' Association, midwinter convention in Baltimore, Md.; H. R. Thomas, 1226 Broadway, Baltimore, secretary.